Crossing Paths

WITH WILDLIFE IN WASHINGTON TOWNS AND CITIES Summer 2006

Volunteers are inspiring

By Dr. Jeff Koenings, WDFW Director

Citizen volunteers have long played a key role in helping ensure a healthy future for fish and wildlife.

The stewardship efforts of Washington Department of Fish and Wildlife biologists, enforcement officers and other staff are amplified by the work of thousands of citizen volunteers.

You may not realize it, but as a Backyard Wildlife Sanctuary manager, you are a volunteer too. You volunteer time and money to build and maintain habitat for wildlife on your property. The cumulative effect of thousands of others across the state making similar efforts, and serving as examples to many others, helps Washington's wildlife in the long run.

With so many energetic volunteers working on behalf of fish and wildlife in so many ways, it's difficult to single out just a few for recognition. But every year we take time to recognize some of the outstanding contributions that citizen volunteers make to fish and wildlife management.

This year our Volunteer of the Year is Rick Hendrick of Brewster, in Okanogan County. Rick is one of the foremost experts on birds in our northcentral region, a

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Take it easy – on yourself and the earth

Summertime.
And the livin' is easy.

Unless you're literally carrying the water for thirsty plants in your yard during these hottest, driest months of the year.

And then trimming and mowing and weeding to keep that constantly watered plant growth in check.

There's got to be a better way to maintain your Backyard Wildlife Sanctuary and still have time to relax and watch the birds and other wildlife your place attracts.

There is a better way, not only for you but also for the earth itself.

Low-maintenance, sustainable landscaping uses carefully chosen native and other drought-tolerant plants that, once established, require less water and less overall care. Some call it "xeriscaping" (pronounced "zeer-i-scape-ing") from the Greek word "xeros" for dry. Others call it "stewardship gardening," as in being stewards of natural resources, including water.

Less water used on your lawn and garden ultimately means more water for other uses, from aquifer recharge to fish and wildlife needs.

By definition, native plants manage to thrive on local precipitation and are used by local wildlife for food and cover. So they're a natural for a sustainable, wildlife-attracting landscape.

Many other low-water use plants that are adaptable to local soil conditions and climate are also well-used by wildlife.

Penstemon- *Jim Cummins photo*

Standard bluegrass lawns are water hogs, at least if you insist on keeping them bright green throughout the summer. Consider cutting back on the watering, even letting some of it go dormant as grasses are meant to do naturally.

You could also convert some lawn space that does not have foot traffic to bunch grasses or ground cover. Use native, drought-tolerant bunchgrasses like Idaho fescue, bluebunch wheatgrass or Great

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Help pollinators help us all

(excerpted from an article by Matthew Shepherd and Mace Vaughan of The Xerces Society for Invertebrate Conservation, a non-profit organization dedicated to protecting inveterbrates and their habitat through science-based conservation, education and advocacy.)

Insect pollinators are among the hardest working creatures of the natural world.

The transfer of pollen grains from the anther to the stigma of the same or another flower, is necessary for plants to produce seeds and fruit. Up to 80 percent of the world's flowering plants rely on pollinators for this transfer.

Insects pollinate two thirds of the world's crop species, whose fruits and seeds together provide 15 to 30 percent of the foods and beverages that we consume.

Pollinators are keystone species in most terrestrial ecosystems. They are essential to the reproductive cycles of most flowering plants, which are a major part of the diet of many birds and mammals. In some areas, these pollinator-supported plant communities bind the soil, thereby preventing erosion and keeping creeks clean for aquatic life.

Despite its importance, in many places the essential service of pollination is at risk. There is a growing body of evidence that the loss, alteration, and fragmentation of habitats and the extensive use of pesticides have contributed to a decline in pollinator populations and reduced fruit set, a trend that has been recorded on all continents.

Pollinator conservation is an easy and straightforward thing to do. Like all wildlife, pollinators need food and shelter, which you can provide by:

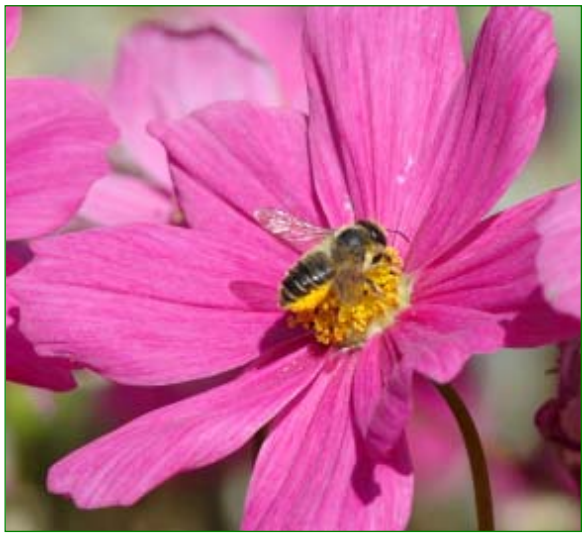
· Growing a diversity of native plants whose blooming times overlap to provide flowers throughout the seasons.

· Maintaining a landscape free of poisonous pesticides.

· Establishing nesting and egg-laying sites, with appropriate nesting materials.

· Constructing sheltered, undisturbed places for hibernation and overwintering.

To help bees, butterflies and other pollinator insects, you should provide a range of plants that will offer a succession of flowers, and thus pollen and nectar, through the whole growing season.



Kelly McAllister photo

Use local native plants. Research suggests native plants are up to four times more attractive to native bees than exotic (non-native) flowers. Native plants are also usually well adapted to your growing conditions and can thrive with minimum attention.

Use heirloom varieties. For the garden, heirloom varieties of herbs and perennials are good sources of nectar or pollen and thus provide good foraging.

Chose several colors of flowers. Bees have good color vision to help them find flowers and the nectar and pollen they offer. Flower colors that particularly attract bees are blue, purple, violet, white, and yellow.

Plant flowers in clumps. Flowers clustered into clumps of one species will attract more pollinators than will individual plants scattered through the habitat patch. Where space allows, make the clumps four feet or more in diameter.

Include flowers of different shapes. There are nearly one thousand different species of bees in the Pacific Northwest, and they are all different sizes, have different tongue lengths, and will feed on different shaped flowers. Therefore, providing a range of flower shapes means more bees can benefit.

Have a diversity of plants flowering all season. Most bee species are generalists, feeding on a range of plants through their life cycle. By having several plant species flowering at once and a sequence of plants flowering through spring, summer, and fall, you will support a range of bee species that fly at different times of the year. A diversity of native flowering plants that support pollinators, from asters to yarrow, are listed on the Xerces website (www.xerces.org).

Plants also provide other resources beyond food for many insects at different life stages. For example, a butterfly begins as an egg, hatches into a wriggling, crawling caterpillar that bites and chews on plants, has a period of inactivity as a chrysalis, and then

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Trial partnership with national group offers "one-stop-shopping"

More properties across Washington are being enrolled in the Backyard Wildlife Sanctuary (BWS) program thanks to a new trial partnership with the National Wildlife Federation.

The National Wildlife Federation is a four million member non-profit organization with a mission to "inspire Americans to protect wildlife for our children's future." The Washington Wildlife Federation, based in Olympia, is one of 47 state affiliates.

The Federation offers certification of yards and gardens across the country as "Backyard Wildlife Habitat" sites, much the same as the Washington Department of Fish and Wildlife (WDFW) does with the BWS program. Recently the Federation partnered with WDFW to offer participants "one-stop-shopping" – benefits from both programs with one-time paperwork.

Here's the way it works: Application for certification through the Federation costs $15, which includes a certificate, yard sign, subscription to a quarterly newsletter, and automatic Federation membership and a year's subscription to "National Wildlife" magazine. For an additional $5, enrollees in that program from Washington state can automatically be enrolled in our BWS program, too.

The partnership is on a six-month trial basis, but if it solicits enough new enrollments, it may be extended more permanently and include other states.

If you're not already enrolled in Washington's BWS program or the Federation's similar program, go to www.nwf.org/backyard for more information.

How do you tag a hummingbird? Very carefully!

With toothpick-like legs, hummingbirds are not easily banded.

But WDFW wildlife biologist Russell Link is up to the task as he assists volunteers from Victoria, British Columbia this summer in a study to learn more about the tiny birds on their breeding grounds.

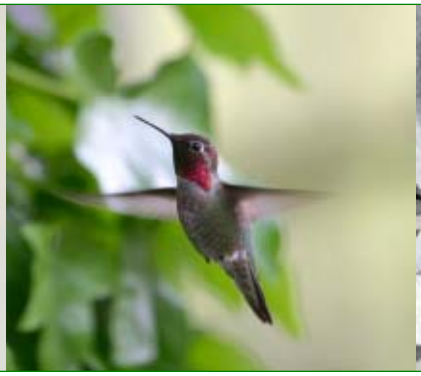
In the initial effort, 48 Rufous hummingbirds were trapped and banded on Whidbey Island. When the birds are re-captured later this year and in subsequent years, it will help determine several things that scientists have questions about:

- the length of time from first to last egg laying;
- what percentage of females double-brood;
- the amount of time birds remain in an area;
- how much they are tied to feeders;
- what part of the northward migration gives us our breeding population; and
- which birds pass through to head further north.

Stay tuned for results in future editions of "Crossing Paths."

Hummingbird trap

Weighing ***Hummingbird*** - *Steve Caldwell photo* ***Measuring beak***



Take it easy – on yourself and the earth, (cont. from page 1)

Basin wild rye, but keep in mind they grow in bunches, not sod-forming networks of roots or rhizomes like bluegrass, so they're not for walking on.

Ground covers and small, creeping shrubs that require little maintenance can fill in some of that non-foot-traffic lawn space, including:

- Bunchberry *(Cornus Canadensis)*
- Kinnikinnik *(Arctostaphylos uva-ursi)*
- Oregon grape, low or creeping *(Mahonia nervosa or repens)*
- Germander *(Teucrium chmaedrys)*
- Salal *(Gautheria shallon)*

Perennial flower beds can be just as colorful throughout the growing season as thirstier annuals with arrangements of native or drought-tolerant species like:

- Arrowleaf balsamroot *(Balsamorhiza sagittata)*
- Bee balm *(Monarda didyma)*
- Bleeding heart *(Dicentra formosa)*
- Coral bells *(Heuchera saguinea)*
- Daylilies *(Hemerocallus spp.)*
- Iris *(Iris spp.)*
- Lavender *(Lavandula angustifolia)*
- Nodding onion *(Allium cernum)*
- Pearly everlasting *(Anaphalis margaritacia)*
- Purple coneflower *(Echinacea purpurea)*
- Penstemon *(Penstemon spp.)*
- Sedum or stonecrop *(Sedum spp.)*
- Sunflowers *(Helianthus spp.)*
- Columbine *(Aquilegia spp.)*
- Yarrow *(Achillea spp.)*

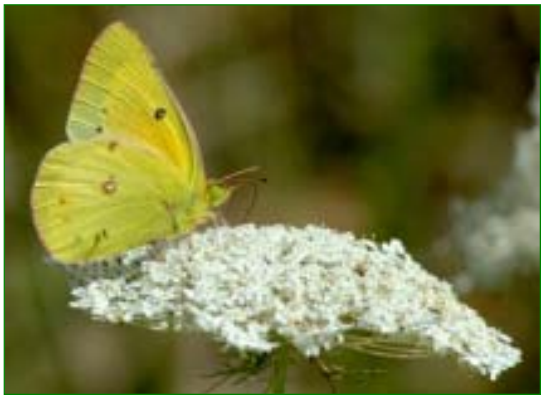
Small to large shrubs, both deciduous and evergreen, that are relatively low-maintenance once established and add an important layer in the landscape for wildlife, include:

- American cranberry bush *(Viburnum trilobum)*
- Basin big sage *(Artemisia tridentate)*
- Chokecherry *(Prunus virginiana)*
- Currant *(Ribes aureum or sanguineum)*
- Elderberry *(Sambucus caerulea or racemosa)*
- Firethorn *(Pyrancantha coccinia)*
- Flowering plum *(Prunus cisteria)*
- Mock orange *(Philadelphus lewisii)*
- Ninebark *(Physocarpus capitatus or opulifolius)*
- Oceanspray *(Holodiscus discolor)*
- Oregon grape, tall *(Mahonia aquifolium)*
- Red osier dogwood *(Cornus stolonifera)*
- Serviceberry *(Amelanchier alnifolia)*
- Snowberry *(Symphoricarpos albus)*
- Sumac *(Rhus glabra)*
- Western Sandcherry *(Prunus bessyi)*
- Wild rose *(Rosa spp.)*

Trees that tend to do well without a lot of attention include:

- Douglas fir *(Pseudotsuga menziesii)*
- Incense cedar *(Calocedrus decurrens)*
- Mountain ash *(Sorbus aucuparia)*
- Mountain hemlock *(Tsuga mertensiana)*
- Rocky Mountain juniper *(Juniperus scopulorum)*
- Rocky Mountain maple *(Acer glabrum)*
- Vine maple *(Acer circinatum)*
- Pine *(Pinus spp.)*

***Yarrow** - Kelly McAllister photo*



Although it may be too warm and dry now to plant new stock, it's a great time to visit arboretums and nurseries to look at these and other plants and to find a supplier so you're ready to plant this fall.

An increasing number of nurseries across the state are including native and drought-tolerant plant species in their sales stock, and the more gardeners ask for them, the more they'll provide.

Some nurseries specialize in these plants and can be found through the Washington Native Plant Society (www.wnpas.org) or Washington State University Extension (http://gardening.wsu.edu/nwnative/.)

Volunteers are inspiring, (cont. from page 1)

dedicated birdwatcher and naturalist who freely shares his time, experience and resources to help us and other organizations.

Rick has built, placed and monitored hundreds of nestboxes for wood ducks on WDFW's Wells Wildlife Area and for American kestrels and blue birds on the Chelan Wildlife Area and other locations throughout Douglas and Okanogan counties. He has banded over a thousand kestrels and other birds under study, surveyed bald eagle roosts and peregrine falcon nests, and monitored American white pelicans on the Wells Pool of the Columbia River. He is also the principal volunteer in charge of the Cooper Mountain Hawk Watch site.

Rick's dedication to wildlife has gone far beyond the usual level for a volunteer. He works full-time on wildlife-related activities, driving thousands of miles a year with no expectation of reimbursement.

That kind of enthusiasm is inspiring to me. I hope it is for you, too.

Keep up the good work for wildlife in your backyard. And enjoy the benefits of your efforts this summer.

We could learn about aging from bats

Bats have long been known to be a major exception from the general pattern for mammals of larger species being longer-lived, with many living past 20 years.

But last year a new longevity record for a bat species was set that has scientists urging more study of bats to learn about aging in general.

A wild male Brandt's bat *(Myotis brandtii)* was recently recaptured in the Birhusa karst region of Siberia in Russia 41 years after it was originally banded there, eclipsing the old record of 34 years and making it the world's longevity champion among small mammals.

The discovery was made by researchers from the University of Texas Health Science Center's Barshop Institute for Longevity and Aging Study in San Antonio, and the State Nature Reserve "Stolby" in Krasnoyarsk, Russia, who wrote in a Journal of Gerontology article:

"In terms of its longevity quotient, which is longevity standardized by body size, *M. brandtii* lives 9.8 times longer than expected – the highest value reported for any mammal, even those maintained in captivity. The fact that this animal could survive this long in the wild indicates very well-preserved

function. That is, the animal had to have well-maintained high frequency hearing to detect prey with its echolocation, as well as fly fast enough, and maneuver with enough agility, to capture prey and avoid predators on a daily basis."

Long hibernation by bats in general is thought to be a cause of such exceptional longevity, and Brandt's bats in Siberia do hibernate from late September through mid-June. Choosing hibernation sites within caves that are highly buffered from the outside environment also seems to be a factor.

Long-lived bats also seem exceptionally placid, not struggling hard when being captured and handled, and returning to hibernation very quickly. This could mean they are particularly deep or long hibernators.

All documented long-lived individual bats are males. Males spend longer in hibernation than females, which have to awaken earlier to join maternity colonies. Pregnant females are likely to be less agile in flight and may be more susceptible to predation. Females also have high energy demands during lactation as they suckle young.

The little brown bat *(Myotis lucifugus)*, which occurs here in Washington, is another exceptionally long-lived species, documented to live up to 34 years in the wild. Studies of little browns indicate they are particularly resistant to oxidative damage to organs and tissue over time, and they might have "stress-resistant" DNA.

The Brandt's bat researchers call all of these findings "provocative."

"Little is known of basic biology of bat cells. Our results at least suggest that bats might have exceptional defense mechanisms against cellular damage…..We hope that this report will stimulate interest among biogerontologists to consider bats seriously as study organisms in a comparative approach to aging research."

Meanwhile, our layman's interpretation suggests that laid-back males who sleep a lot might outlive us all!

Juncos are number one

The dark-eyed junco (*Junco hyemalis*) was the most numerous bird species documented at winter feeding stations across the state during the Washington Department of Fish and Wildlife (WDFW) 1992 – 2002 Winter Backyard Wildlife Surveys.

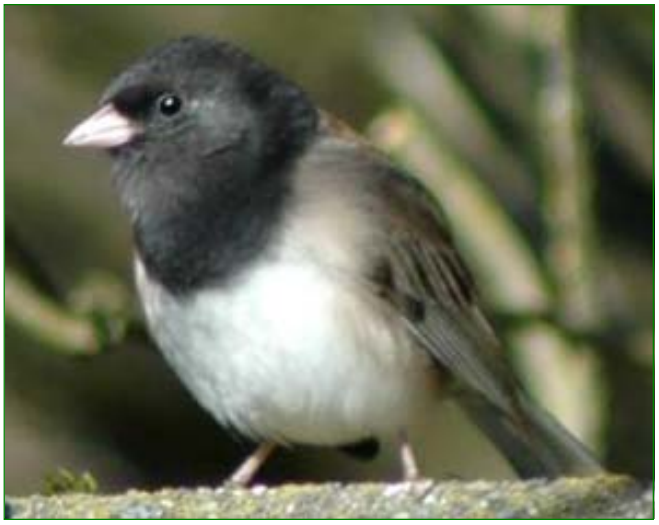
That's from the gross analysis of data that WDFW wildlife biologist Patricia Thompson is finalizing for the survey report due out this fall.

Here's the rest of the Most Numerous Species List, in average rank over the ten years of the surveys when volunteers counted birds by species at their backyard feeding stations from November through March:

2. House Finch *(Carpodacus mexicanus)*
3. Pine Siskin *(Carduelis pinus)*
4. House Sparrow *(Passer domesticus)*
5. Black-capped Chickadee *(Poecile atricapillus)*
6. European Starling *(Sturnis vulgaris)*
7. American Crow *(Corvus brachyrhynchos)*
8. American Robin *(Turdus migratorius)*
9. Chestnut-backed Chickadee *(Poecile rufescens)*
10. Spotted Towhee (*Pipilo maculates)*
11. Steller's Jay *(Cyanocitta stelleri)*
12. California Quail *(Callipepla californica)*
13. Bushtit *(Psaltriparus minimus)*
14. American Goldfinch *(Carduelis tristis)*

Eastern Washington species may be under-represented because of disproportional data biased towards the west side of the state, Thompson said, but in the final analysis, regions will be separated.

The dark-eyed junco was consistently the most numerous species. It was #1 from 1996 through 2000, #2 in 1994 and 1995, and #3 only in 1993. The house finch ranking did not fluctuate greatly, always being #2 or #3. The pine siskin, highly variable in abundance, was on the list every year, most numerous in 1995, with a count three times higher than other years. The house sparrow fluctuated from most numerous in 1993 to #6 in 1999. The black-capped chickadee remained consistently in the middle, ranking #5 from 1997 to 2000. The European starling was most numerous only once in 1994.



Junco *- Kelly McAllister photo*

The American robin ranked low, even dropping from the list in 1998. However, this migratory species is always seen throughout the winter in western Washington and sometimes in large concentrations. 1997 was the first year the chestnut-backed chickadee appeared as a most numerous bird, remaining on the list to the year 2000. The spotted towhee skips on and off the list, hovering around the bottom each year and not making the 1997, 1999 and 2000 lists. The Steller's jay visited in numbers great enough to make the list in 1996, 97, 98 and 2000.

The California quail appeared on the most numerous list for the first time in 1999 (#7) and 2000 (#10). Data were examined to see if there was an increase in quail numbers over the years, but none was found. In fact, 2000-2001 was one of the lowest average counts for California quail in the surveys. In addition, there was no apparent increase in the percent of yards visited by quail. There may have been an increase in yards with favorable quail habitat, such as those east of the Cascades, and a factor not yet examined.

The final report will also look at the Most Widespread Species, or those documented at the highest percentage of yards. There are several ways a species can be represented.

A species can be very widespread in large numbers (dark-eyed junco), very widespread but not as numerous (American robin), or very numerous but not as widespread (house sparrow). For example, in 1993 the most numerous species was the house sparrow, yet it visited only 46 percent of the yards. According to a summary of the 1994-1995 data, house sparrows inhabited mostly built-up suburban and urban environs.

Many species on the Most Numerous list are always on the Most Widespread list. However, some species, such as the northern flicker (*Colaptes auratus*), rank high on the Most Widespread list but never appear on the Most Numerous list. In other words, almost all survey participants saw northern flickers, but not many of them.

Dark-eyed junco and black-capped chickadee were consistently the number one and number two most widespread species, respectively, from 1993 through 2000. The dark-eyed junco was seen in almost every yard every year, ranging from 89

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Help pollinators help us all (cont. from page 4)

emerges as a flying adult that can only drink fluids. Providing for these means more than just flowers for nectar and pollen.

Provide caterpillar host plants. The caterpillars of each butterfly species have their own limited menu of plants upon which they will dine. Female butterflies lay their eggs on or near these host plants and will only be able to lay eggs if there are the right plants. To start with, grow host plants for the more common butterflies you already see flying through your property and then branch out as you learn more. From clover to willow, host plant species are listed on the Xerces website.

Leave hiding places for butterfly pupae. After several weeks of eating and growing, caterpillars need to transform (pupate) into their adult, winged forms. They do this within the protection of a chrysalis. Before becoming a chrysalis, however, a caterpillar wanders in search of a protected site. Depending upon the species, this safe haven could be a bush, tall grass, or piles of leaves or sticks.

Leave overwintering sites. Depending upon the species, butterflies may overwinter (hibernate) as eggs, larvae, pupae, or even adults. You might find them on plants, under leaf litter, under loose bark, or in piles of logs and other debris. To help these hibernators, a little untidiness goes a long way. Two or three weeks before the severe cold of winter sets in, clean up a minimum of leaves and garden debris and create a pile of logs or leaves.

Offer fruit and sap. Adult butterflies need sugar to fuel their search for mates and egg-laying sites. Nectar provides most of this but some butterflies, such as the mourning cloak, get sugars from rotten fruit or the sap leaking from wounded trees. Plates of rotting fruit (such as peaches, melons, or bananas) will attract many of these beautiful insects.

Create mineral and salt areas. Because plants contain very little minerals or salt, many adult butterflies need to find another source of these nutrients. In the wild, they can get these by tasting exposed clay deposits, animal urine, saliva, or even bird droppings. They also will come to mud puddles that you create. Scrape a small depression in the ground, line the edges with pebbles, and add some water each morning. It is best if these puddles dry out by the end of each day.

Maximize sun, protect from wind. Adult butterflies need to be warm in order to fly. Therefore, nectar flowers and larval host plants should be grown in an open, sunny area protected from the wind by large shrubs, a hedgerow, a fence, or some other windbreak. You could also put out large, flat rocks placed in the sun. These rocks will soak up the sun's heat and give the adult butterflies a place to warm themselves.

Provide bee nest sites. The great majority of bees are solitary nesting species that create nests in beetle-riddled snags or dug in the ground. The bees may remain in the nest for a year or more as they pass through the egg, larva, and pupa stages. Wooden blocks drilled with small holes or patches of bare ground can provide secure nest sites.

Avoid pesticides. Alternative methods for controlling specific pests without using chemicals are available, but even these should be used with caution, keeping in mind the various life stages of butterflies and other insects.

You'll also find great advice and information in these books:

The Xerces Society and the Smithsonian Institution. Butterfly Gardening: Making Summer Magic in Your Backyard. Sierra Club Books, San Francisco, CA.

Buchmann, S. L., and G. P. Nabhan. 1997. The Forgotten Pollinators. Island Press, Washington, D.C.

Shepherd, M., S. L. Buchmann, M. Vaughan, and S. H. Black. 2003. Pollinator Conservation Handbook. Xerces Society, Portland OR.

Vaughan, M., M. Shepherd, C. Kremen, and S. H. Black. 2004. Farming for Bees: Guidelines for Providing Native Bee Habitat on Farms. The Xerces Society, Portland, OR

Juncos are number one (cont. from page 6)

percent in 1994 to 98 percent in both 1998 and 1999. Black-capped chickadees were recorded in 79 percent of the yards in 1994 to 89 percent in 1996. Other widespread species, visiting many different yards, were the American robin, house finch and spotted towhee.

Downy woodpeckers (*Picoides pubescens*) visited over half the yards reporting in 1997 and 1998, but they are not one of the most numerous. The red-breasted nuthatch (*Sitta Canadensis*) appeared in over 50 percent of the yards from 1994 through 2000. In 1995 there was a pine siskin irruption everywhere that showed up throughout the data and was reflected in the Most Widespread list, ranking #5 instead of the usual #9 or #10.

The house sparrow was at the bottom of the Most Widespread list, and absent from the list in 1993.

Take some summer pics for us, too

While you're snapping digital photos of family, friends and vacations this summer, take some for us, too – of your Backyard Wildlife Sanctuary, that is.

The Washington Department of Fish and Wildlife (WDFW) website has an "Image Gallery" page (**http://wdfw.wa.gov/gallery2/main.php**) that includes an "album" on Backyard Wildlife Sanctuaries (**http://wdfw.wa.gov/gallery2/main.php?g2_itemId=8782**).

Take a look at what's there now and think about what you might be able to add in any of the categories: Gardens and Landscapes; Garden Wildlife; Feeders, Ponds and Birdbaths; Nestboxes and Bathouses; Wildlife Plants; and Before and After shots of your Backyard Wildlife Sanctuary (before development as a sanctuary and after.)

If you provide us digital photos for posting on these pages, you will be making them available for public use for non-profit or educational purposes, with proper credit to the photographer, owner or copyright holder of the photo. Commercial use of these images is prohibited without approval of the copyright holder.

Send digital photos for posting consideration to **luersmel@dfw.wa.gov** .

Goldfinch *- Kelly McAllister photo*

Pierce County connections

Backyard Wildlife Sanctuary managers in or near Pierce County may want to check out the Pierce Conservation District's website and quarterly newsletter "The Tahoma View" for good information about stewardship, from "stream teams" to native plant gardening.

See http://www.piercecountycd.org/streamteam.html.

Second "BioBlitz" even bigger

Eighty scientists and local citizen volunteers just completed a 24-hour count of animal and plant species along the Lower White River on the Pierce-King county line in Washington's second "BioBlitz."

"BioBlitzing is a citizen survey technique sweeping the country," explained Washington Department of Fish and Wildlife (WDFW) biologist Michelle Tirhi. "It's a concentrated effort to collect wildlife data within a biologically rich area to help landowners learn how to maintain that richness and save taxes at the same time."

Pierce County offers a tax break to those who dedicate portions of their property to wildlife habitat preservation. The property must qualify for the tax break with a wildlife assessment, like the BioBlitz.

Washington first BioBlitz last summer had 50 volunteers counting 240 species in the Crescent Valley near Gig Harbor.

This year's event, with more than half again as many volunteers, tallied 569 species of plants and animals in the river corridor.

The information is being entered into the state Nature Mapping database coordinated by the University of Washington (UW) and WDFW.